

conditions are just emerging. Work is underway to provide information on real-time traffic conditions via these devices. Intelligent Cruise Control, which automatically adjusts your speed to match slower vehicles in front of your car, is now available as an option on some cars. Daimler-Chrysler has developed a device to help warn drowsy drivers when a vehicle strays from the lane.

### What are the future plans for ITS in our region?

Nearly \$200 million has been allocated by MAG for ITS expansion in the region over the next 20 years. A plan for ITS in the region was developed by MAG in 2001. Over the last six years, nearly \$45 million has been spent on ITS in the region.

There will be a gradual increase in the number of ITS devices along freeways and arterial streets. Every city and town in the Phoenix metro region is investing in ITS by upgrading their traffic management systems. Cities have begun to install ITS devices along the most heavily traveled streets. More cities will be connected to each other's Traffic Management Centers to enhance coordination. There will be more sharing of video images of streets and freeways via public Web sites.

The 5-1-1 phone system will be expanded to include traffic information about local city streets. Information on current travel conditions will be delivered to travelers in a safe and convenient manner. This will result in a safer, more efficient regional transportation system.



### Where can I make suggestions OR report problems related to ITS in the region?

- For ITS on local streets, contact your city, town, or county traffic engineer.
- For ITS on freeways, contact ADOT.  
– [www.azdot.gov](http://www.azdot.gov) 602.712.7355
- For ITS on transit, contact Valley Metro.  
– [www.valleymetro.org](http://www.valleymetro.org) 602.253.5000
- For ITS planning and regional solutions, contact MAG.  
– [www.mag.maricopa.gov](http://www.mag.maricopa.gov) 602.254.6300

### Where do I go for more information?

You can find more information on ITS at the following Web sites:

- [www.mag.maricopa.gov/committee.cms?item=78](http://www.mag.maricopa.gov/committee.cms?item=78)
- [www.az511.com](http://www.az511.com)
- [www.itsa.org](http://www.itsa.org)



### MARICOPA ASSOCIATION OF GOVERNMENTS

Sarath Joshua, P.E., Ph.D.

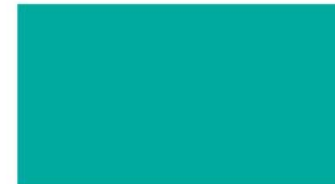
ITS & Safety Program Manager

[sjoshua@mag.maricopa.gov](mailto:sjoshua@mag.maricopa.gov)

Ph: 602.254.6300 • Fax: 602.254.6490

[www.mag.maricopa.gov](http://www.mag.maricopa.gov)

## Intelligent Transportation Systems (ITS)





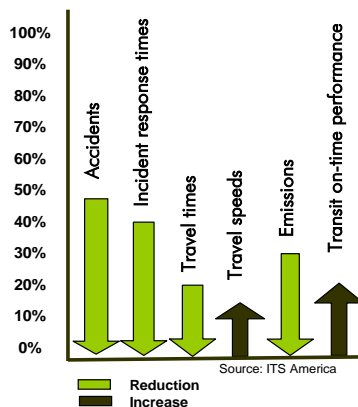
## What are Intelligent Transportation Systems?

ITS stands for "Intelligent Transportation Systems" and is the technical term used to refer to the use of advanced technologies to improve travel by people on foot, on bikes, and in cars, buses and trucks in the Valley. Traffic congestion within the Phoenix metropolitan region, as in all similar urban centers, continues to grow.



ADOT's Freeway Management System

Technology has revolutionized all aspects of our modern-day world, from our homes to our schools and even our recreation. It is also being applied to our transportation systems to make them safer and more efficient. The technologies used in ITS include: computers, electronic sensors, communications, and safety enhancing systems.



ITS Benefits

## What are the benefits of ITS to the region and to individuals?

ITS applications provide many benefits, which include:

- Driving to work with the knowledge (provided via ITS) that you are on the quickest route at that particular time.
- Getting the latest traffic information by calling 5-1-1 via any phone.
- Learning almost immediately (via radio, roadside electronic signs, or a phone call to 5-1-1) what is happening ahead, what is the possible delay, and what are the best alternate routes when you encounter stopped traffic on the freeway.
- Having the convenience of traveling to work or school by bus with information that the next bus will arrive on time at your bus stop.
- Being able to drive smoothly along major streets with well coordinated green lights.
- Having help quickly dispatched to you by the Freeway Service Patrol in case your vehicle breaks down on the freeway.

Many of these benefits are available here in the Phoenix area right now and others will be delivered through a number of ongoing ITS projects.

Cities and towns, Maricopa County, Valley Metro, Maricopa Association of Governments (MAG), Department of Public Safety (DPS), Arizona Department of Transportation (ADOT), Federal Highway Administration (FHWA), and a few private firms have formed a partnership named AZTech™ to serve as a forum to promote the use of ITS technology, and to coordinate traffic operations across the region. Although all ITS applications are owned and operated by individual agencies, they are also collectively referred to as the regional AZTech™ system.



Glendale TMC and electronic sign



## Where can I see these systems at work?



Chandler TMC

The Traffic Management Centers (or TMCs for short) — operated by the cities of Phoenix, Tempe, Chandler, Scottsdale, Glendale, Mesa; Maricopa County; ADOT; Valley Metro; and Valley Metro Rail are all "nerve centers" of regional ITS in

the Phoenix Metropolitan Region. The operators at TMCs keep an eye on traffic conditions using video cameras and vehicle sensors in the roads. Information from these devices flow via telecommunication links to the TMCs. Citywide traffic signal systems, cameras and electronic message signs are all controlled either by computer programs or skilled human operators at TMCs. Cities are able to use ITS to monitor day-to-day conditions.

The Traffic Operations Center of ADOT is the Center for coordination of statewide transportation operations. The entire urban freeway system in the Phoenix metro region is managed and controlled from this Center. Maps showing real-time freeway conditions and various camera views are broadcast from the Center via the Internet at [www.az511.com](http://www.az511.com) and via local television reports. The Center is manned around the clock for monitoring the state's freeway system and other major highway routes. Systems operated at the Center include: computers to coordinate traffic operations; electronic message signs along freeways; traffic lights installed at freeway entrance ramps to meter the flow of traffic onto the freeway; and the 5-1-1 system to provide up-to-date traffic information via the phone and Internet.

A virtual tour of TMCs in the region is available at: [www.mag.maricopa.gov/detail.cms?item=4604](http://www.mag.maricopa.gov/detail.cms?item=4604)

## Are there ITS devices for use inside cars?

Yes, there are. Vehicles equipped with systems such as OnStar by GM or RESCU by Ford can connect a car's occupant directly to an operator via a cellular phone link for assistance with directions, medical emergencies, etc. These services can also send a remote signal to help open a locked car. Currently there are many cars equipped with "Navigation Systems." However, systems that allow drivers to get the latest information on traffic